

STATE OF MICHIGAN

RECEIVED
MAY 11 1995
JOHN ENGLER, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T MASON BUILDING, PO BOX 30028, LANSING MI 48909-7528

OFFICE OF RCRA
WASTE MANAGEMENT DIVISION
EPA REGION V

May 9, 1995

NATURAL RESOURCES
COMMISSION

JERRY C BARTNIK
KEITH J CHARTERS
LARRY DEVUYST
PAUL EISELE
JAMES P HILL
DAVID HOLLI
JOEY M SPANO

REPLY TO:
WASTE MANAGEMENT DIVISION
PO BOX 30241
LANSING MI 48909-7741

Mr. Robert Sullivan
Wacker Silicones Corporation
3301 Sutton Road
Adrian, Michigan 49221-9397

US EPA RECORDS CENTER REGION 5



1005991

Dear Mr. Sullivan:

SUBJECT: Closure Certification Notice of Deficiency
Container Storage Area
Wacker Silicones Corporation (Wacker)
MID 075 400 671

The Michigan Department of Natural Resources, Waste Management Division (WMD), has completed a review of the hazardous waste container storage area closure certification document for the above referenced facility, submitted February 13, 1995.

The closure certification was reviewed for compliance with the approved closure plan, R 299.9613(3) of the hazardous waste management Administrative Rules (Rules) promulgated pursuant to Part 111 of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451 (Act 451) and 40 CFR 264.115. The closure certification is unacceptable due to the deficiencies listed in the enclosure, "Notice of Deficiency."

Please be advised that failure to submit two copies of a complete closure certification document by June 12, 1995 is a violation of R 299.9613(3) of the Rules and 40 CFR 264.115. Such a violation may subject Wacker to fines and penalties pursuant to Section 11151 of Part 111 of Act 451.

Additionally, the financial assurance requirements for closure, as outlined in Part 7 of the Rules remain in effect. Wacker is obligated to comply with the financial requirements until the Director of the Michigan Department of Natural Resources releases the company from those requirements.

If you have any questions, please contact me.

Sincerely,

Angela L. Hahn
Hazardous Waste Program Section
Waste Management Division
517-373-7738

Enclosure

cc/enc: Mr. Ross del Rosario, U.S. EPA
Ms. Deborah Hennessy, Jobs Commission
Mr. Martin Jacobson, DNR Jackson
Mr. Steve Buda, DNR
Ms. Jan Sealock, DNR
HWP/C&E File

Wacker Silicones Corporation
MID 075 400 671

Notice of Deficiency
May 9, 1995

Notice of Deficiency

1. The closure certification document must include a summary of waste types and quantities removed from the site and the destination of these wastes in accordance with R 299.9613(3)(e) of the Rules.
2. The closure certification document must include a certification statement supplemented by the language provided in 40 CFR 270.11(d) and be signed by the owner or operator and an independent registered professional engineer. A copy of the delegation of authority must also be included for the signatory as specified in 270.11(b). At least one copy of the independent registered professional engineer's certification must have an original stamp.

**WACKER SILICONES CORPORATION
LENAWEE COUNTY
ADRIAN, MICHIGAN
(MID075400671)**

**CLOSURE CERTIFICATION
FOR
TANK - 101**

Submitted to:

**Michigan Department Of Natural Resources
Waste Management Division
Box 30028
Lansing, Michigan 48909**

Prepared by:

**City Environmental Contracting, Inc.
Detroit, Michigan**

November 10, 1992

CEC Project No. 793.159

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1.0 INTRODUCTION

In compliance with Federal (RCRA) and State (Act 64) requirements, Wacker Silicones Corporation, formerly SWS Silicones corporation, submitted a RCRA closure plan to the Michigan Department of Natural resources (MDNR) in 1984. The Closure Plan was amended in February 29, 1988 and addendums to the plan were made in 1989, 1990, 1991, and 1992 to reflect the gross national product inflation factors for those years. A copy of the closure plan is provided in Appendix A.

On October 24, 1991, Wacker Silicones Corporation (Wacker) submitted to the MDNR a notification letter of Wacker's intent to perform a partial closure of Tank 101, previously utilized for the storage of waste 1,1,1-trichloroethane, due to the cessation of 1,1,1-trichloroethane usage. A copy of the notification letter is also included in Appendix A.

Initially, arrangements were made to have SSOE, Inc. of Toledo, Ohio, perform and certify closure activities, however, Wacker elected to retain the services of a Michigan based contractor. Therefore, Inland Waters Pollution Control (IWPC), of Detroit, Michigan, was selected by Wacker to implement closure activities as specified in the closure plan. City Environmental Contracting, Inc., an affiliate of IWPC, prepared the Closure Certification.

This report summarizes the closure activities undertaken at the Wacker facility in Adrian, Michigan.

2.0 FACILITY DESCRIPTION

2.1 General Description - Wacker Silicones Corporation (Wacker), formerly SWS Silicones Corporation, is located at 3901 Sutton Road, Lenawee County, in Adrian, Michigan as shown in Figure 1.

Wacker manufactures a variety of silicone products including fluids, emulsions, sealants, antifoams, and rubbers. The plant employs approximately 250 people and an additional 250 people are employed at the neighboring Tech Center and administrative complex.

A variety of processes including chemical reaction, distillation, hydrolysis, mixing, and polymerization are used. Company operations are divided into four basic manufacturing areas:

- Polymers area which produces various fluids and gums including silicone oils, solvent blends, and some plant intermediates including OH fluids,
- hi-Bay area produces band ply lubes, outside tire paints, antifoams, emulsifiers, and printing fluids along with plant intermediates for polymers and RTV areas,
- RTV area produces room temperature vulcanization compounds and silicone greases, and
- HCR area produces heat curable rubber bases and compounds.

Hazardous wastes are generated by tank cleaning, byproducts generations, spent solvents from production, laboratory solvents, off-specification products and fume recovery. The hazardous waste management facilities consist of the drum storage area (800x55-gallon drums), two 15,000-gallon storage tanks, and one 25,000-gallon storage tank (Figure 2).

2.2 Storage Tank And Waste Description - Tank T-101, a 25,000-gallon steel horizontal above ground tank, was utilized for the storage of spent 1,1,1-trichloroethane solvent waste.

T-101 was fabricated and stamped in accordance with ASTM Code Section VIII and was rated for 200 psi and 150 F with a maximum stress value (in tension) of 13,750 psi.

The T-101 storage tank was situated on a 28-ft by 64-ft concrete pad surrounded by a 3.5 to 4-ft high reinforced concrete wall. The pad base is 4 inches thick and reinforced with 6x6 - #6 rods. The T-101 storage tank, oriented horizontally, was supported by two saddles (reinforced by 1" rods).

Spent 1,1,1-trichloroethane solvent wastes were generated from the HiBay processing area and were transported via drums and tote containers to Tank T-101. When reaching a certain volume, the accumulated waste was pumped to a tanker using an air-operated diaphragm pump and then transported to a licensed reclamation facility.

3.0 CLOSURE ACTIVITIES

3.1 Waste Removal - Waste material removed, along with quantities, dates, and manifest document number are summarized below. Copies of the Uniform Hazardous Waste Manifests and waste analysis are presented in Appendix B.

<u>Manifest No.</u>	<u>Date</u>	<u>Quantity</u>	<u>Waste Code</u>	<u>Disposal Facility</u>
MI 2176646	06/13/91	5527 gallons	F002	Petro-Chem
MI 2176647	06/18/91	4500 gallons	F002	Petro-Chem
MI 2351100	10/17/91	840 gallons	F002	E. W. C.
MI 2570105	08/10/92	45 Drums	F002	C. C.

Petro-Chem : Petro-Chem Processing, Inc.
421 Lyncaste
Detroit, MI 48214
US EPA ID No.: MID980615298

E.W.C.: Environmental waste Control
27140 Princeton Ave.
Inkster, MI 48141
US EPA ID No.: MID057002602

C.C.: Chemical Conservation of Georgia, Inc.
1612 A. James p. Rogers Circle
Valdosta, Georgia 31601
US EPA ID No.: GAD093380814

In preparation for closure, Wacker removed the above listed waste materials related to T-101 in the following manner:

- 1) Manifest MI 2176646 - The last regular shipment made on June 13, 1991 which represent the only regular shipment of 1991.

- 2) Manifest MI 2176647 - This shipment made on June 18, 1991 was approximately 85% water.
- 3) Manifest MI 2351100 - This shipment made on October 17, 1991 of Tank T-101 wash-water. This water was generated during high-pressure cleaning of the T101 ancillary equipment.
- 4) Manifest MI 2570105 - This shipment made on August 10, 1992 of 45 drums of T-101 tank sludge generated during closure activities.

All wash -water generated during T-101 closure activities was hauled off site for proper treatment/disposal as shown in the above waste shipment summary.

3.2 Decontamination - Tank T-101 decontamination activities were performed by Inland Water Pollution Control (IWPC), of Detroit, Michigan during the period of July 7 through July 10, 1992 using high pressure water cleaning (water blasting). T-101 sludges and water generated during decontamination activities were drummed pending its classification for disposal as summarized above. In addition, Wacker employees also performed decontamination activities of T-101 ancillary equipment (piping and pump) in October, 1991.

On September 15 , 1992, Wacker employees dismantled T-101 Pump and piping in three (3) foot sections and these sections were rinsed with water inside a 55-gallon drum. The rinse water was later transferred to the facility's wastewater treatment system since 1,1,1-trichloroethane was not detected above laboratory detection level of .02 ml/liter.

All decontamination activities were conducted under levels C and B protection. Confined space entry permit checklists were completed prior to any tank entry. Levels of protection included self contained -breathing apparatus (SCBA) and full face air purifying respirators, chemical resistant clothing, inner and outer chemical resistant gloves chemical resistant boots, and hard hats. Safety line and harness were also used.

4.0 CLOSURE VERIFICATION

4.1 Verification Sampling - On August 19, 1992, two wipe samples were collected from the T-101 interior for 1,1,1 and 1,1,2-trichloroethane. These samples were collected to verify that decontamination activities were successful in removing any residues of the waste solvent that used to be stored inside the tank. In addition, a water sample was collected, on September 16, 1992, from the drum where T-101 ancillary equipment received its final rinse.

4.2 Laboratory Analyses - The two wipe samples were submitted to Brighton Analytical Laboratory, Inc. for 1,1,1 and 1,1,2-trichloroethane analysis using USEPA Method 8240 in accordance with protocols identified in SW-846 (**Test Methods for Evaluating Solid Waste**). Analysis of the wipe samples resulted in non-detection of 1,1,1 and 1,1,2-trichloroethane above the method detection level of 10 ug per wipe. Analysis of the water sample also resulted in non-detection of 1,1,1 trichloroethane above laboratory method detection level of 20 ug/liter.

Copies of laboratory reports along with their QA/QC documentation and chain of custody forms are provided in Appendix C.

5.0 CERTIFICATION OF CLOSURE

I, Kirit T. Ravani, being a duly licensed Professional Engineer registered in the State of Michigan, and I, Gordon C. Philbrook, Administrator of Environmental Regulations at the Wacker Silicones Corporation and a duly licensed Professional Engineer registered in the State of Michigan, do hereby certify that the hazardous waste unit (Tank 101) of the Wacker Silicones Corporations (USEPA ID # MID 075400671), has to best of our knowledge and belief, been closed in substantial accordance with the plans and specifications in the closure plan and its approved amendments by the Michigan Department of Natural Resources (MDNR). Completion of the physical closure activities at the aforementioned facility was accomplished on the 15th day of September, 1992.

Upon request by the Michigan Department of Natural Resources, additional documentation supporting this certification will be furnished in accordance with the requirements of 40 CFR 265.115.

Signature: Kirit T. Ravani Date: 11-10-92

Business Address: City Environmental Contracting, Inc.
2021 S. Schaefer Hwy
Detroit, Michigan 48217

Business Telephone: (313) 841-5800

Engineer License No.: Michigan - 21003

Signature: Gordon C. Philbrook Date: 11-12-92

Business Address: Wacker Silicones Corporation
3301 Sutton Road
Adrian, Michigan 49221-9397

Business Telephone: (517) 264-8500

Engineer License No.: Michigan - 18243

6.0 CERTIFICATION CHECKLIST

In accordance with MDNR certification requirements, the following closure checklist is provided:

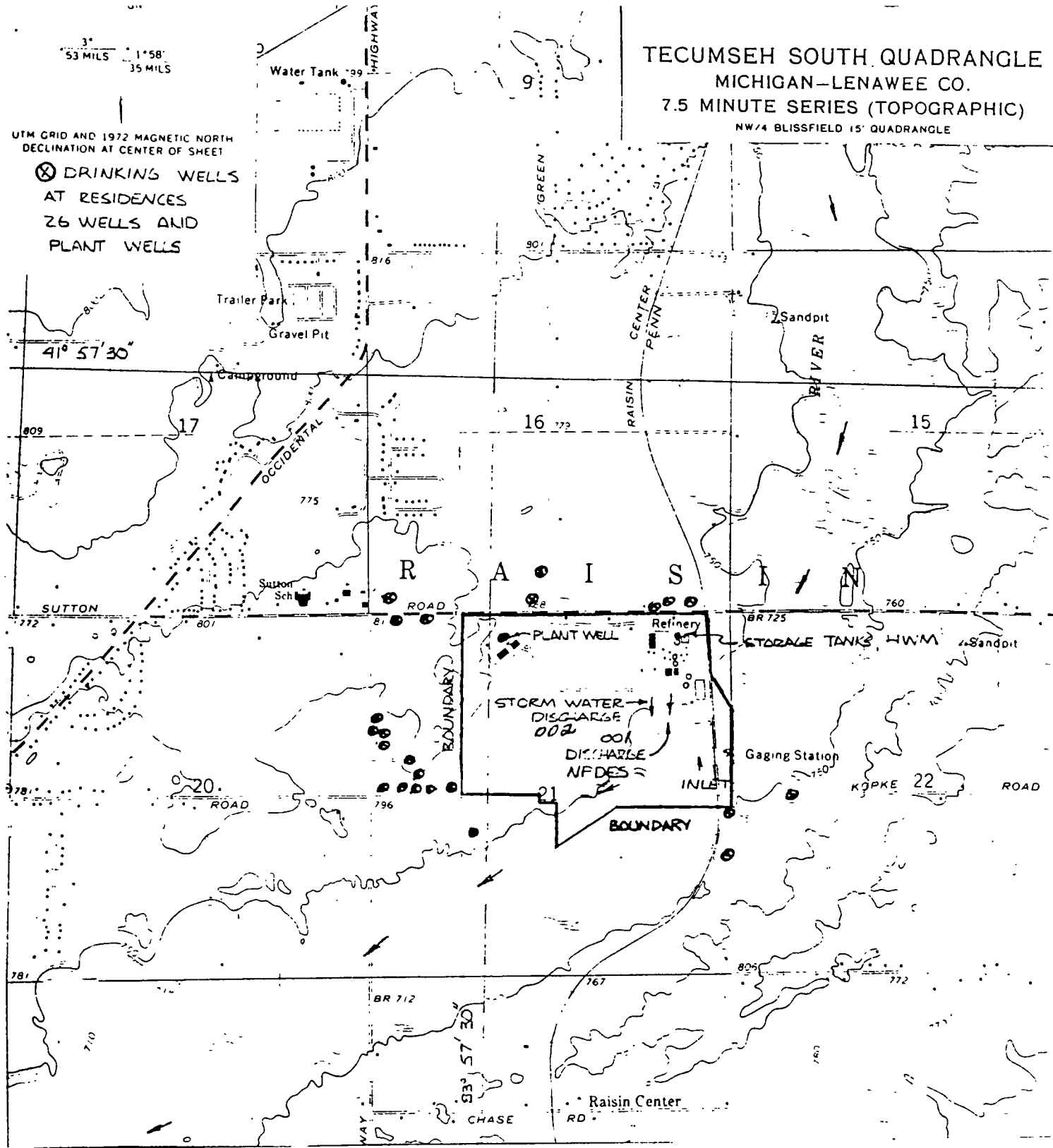
- This report includes manifests documenting that wastes generated before and during closure activities have been properly transported to a licensed treatment and disposal facility as discussed in Section 3.0 of this report and presented in Appendix B.
- A certification statement by the Owner/Operator and an independent registered engineer is included in Section 5.0 of this report.
- A summary of decontamination procedures are discussed in Section 3.2 of this report. The procedures identified in the closure plan and its modifications were followed during decontamination activities.
- The results of the analysis performed after completion of closure activities are contained in Section 4.0 of this report and are included in Appendix C.
- A copy of the closure plan and relevant correspondences are provided in Appendix A of this report.

FIGURE 1
FACILITY LOCATION MAP

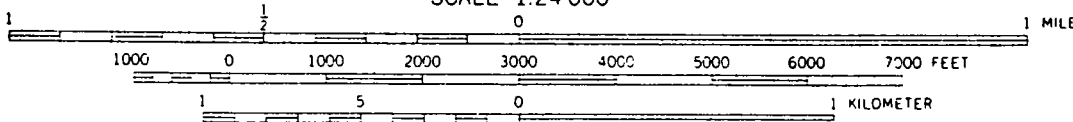
TECUMSEH SOUTH QUADRANGLE
MICHIGAN-LENAWEE CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
NW/4 BLISSFIELD 15' QUADRANGLE

UTM GRID AND 1972 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

⊗ DRINKING WELLS
AT RESIDENCES
26 WELLS AND
PLANT WELLS



SCALE 1:24 000



CONTOUR INTERVAL 10 FEET
DOTTED LINES REPRESENT 5-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

LOCATION MAP

WACKER SILICONES CORPORATION ADRIAN MICHIGAN

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST



DRAWING NO. 5

FIGURE 2
FACILITY MAP

LEGEND
 — STORM DRAIN SYSTEM
 --- CHEMICAL SEWER SYSTEM
 S.F. - SAND FILTER

SUTTON HOUSE

GUARD
CHANGE
HOUSE

WAREHOUSE

H.C.R.

POLY.

HWM
WASTE
STORAGE
TANKST-08
T-101
T-105

R.T.V.

H.C.R.

DRUM
BLDG.

UTILITY BLDG.

STORAGE
BLDG.M.T. DRUM
STORAGE
CONTROL
BLDG.

R.T.V.

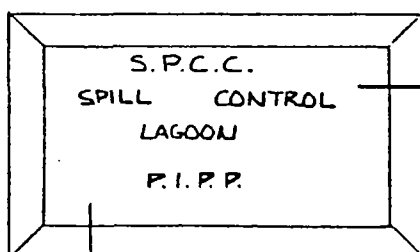
R.T.V.
STOR.H.C.R.
STOR.H.C.R.
STOR.

POLYMER

LAB

STORAGE
BLDG.
SALT
STORAGE
BLDG.PEROXIDE
STORAGESOLVENT
STORAGE

SHOP

PILOT
PLANTHWM WASTE
STORAGE
PADBLACK
HOUSESTORAGE
BLDG.SEWAGE
TREATMENT
PLANTEQUALIZATION
PONDPUMP
HOUSE

COOLING

PONDS

BY-PASS

TO WIER

.001

STORM WATER
DISCHARGE
.002

Facility Map

WACKER SILICONES CORPORATION
 ADRIAN MICHIGAN

25 470 9-1-92

DRAWING NO. 4

APPENDIX A

RCRA CLOSURE PLAN & CORRESPONDENCE WITH MDNR

WACKER SILICONES CORPORATION

RCRA Closure Plan

I. Tanks

It is estimated that the tanks will require closure about the year 2001. Generally, tanks containing hazardous waste materials will be emptied to tank trucks for removal and disposal of contents. Only Michigan, US EPA, and Wacker-approved haulers will be used. Only US EPA and Wacker-approved disposers will be used.

Tanks and ancillary equipment will then be decontaminated by washing the tank, piping, pump, and associated equipment with three increments of water and industrial detergent. The washing agent will be recirculated and pumped by high pressure lance. Washings will be put in drums for disposal by an approved hauler and disposer.

The tanks, piping, and associated equipment will then be purged with air. The entire schedule of closure should take about 4 months.

The tanks can then be used to store hazardous wastes for periods less than 90 days.

An independent professional engineer will certify completion of the closure.

II. Drum Storage

It is estimated that the storage pad will require closure in about the year 2021. Generally, drum storage areas will be emptied by the removal of the drums to an approved disposer. Only Michigan, US EPA and Wacker-approved haulers will be used. Only US EPA, Wacker and possibly Michigan-approved disposers will be used.

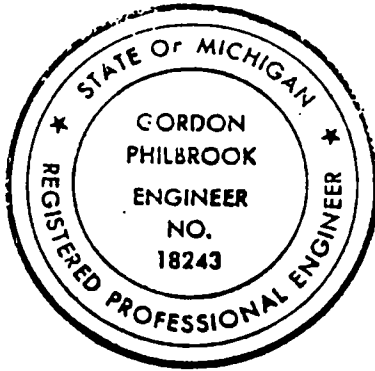
The drum pad will be washed with water and industrial detergent. Washings will be put in drums for disposal by an approved hauler and disposer, if contaminated. Otherwise, the washings will go to the chemical sewer. The entire schedule of closure should take about 3 months.

After thorough decontamination, the storage pad will be used for storage of hazardous wastes for periods less than 90 days.

An independent professional engineer will certify completion of the closure.

See attached forms for closure plan tanks and drum storage areas.

Certified by,



Gordon C. Philbrook

Gordon C. Philbrook
Wacker Silicones Corporation
Administrator, Environmental
Regulations
Professional Engineer
State of Michigan
PE 18243
Revised: February 29, 1988

Wacker Silicones Corporation
3301 Sutton Road
Adrian, MI 49221-9397
(517) 264-8500
Fax (517) 264-8246

October 24, 1991

Michigan Department of Natural Resources
Waste Management Division
1st Floor, South Ottawa Building
P. O. Box 30028
Lansing, Michigan 48909

Re: Wacker Silicones Corporation
(formerly SWS Silicones Corporation)
US EPA ID# MID 075400671

Gentlemen:

We have a final "Part B" Resource Conservation and Recovery Act (RCRA) Permit to store hazardous waste at our facility. The permit will expire on September 10, 1994.

The permit covers storage in containers on a storage pad, and storage in three tanks, T-101, T-105 and T-108.

In accordance with Act No. 64, R 299.9613 (Rule 613), Closure and Post-Closure, this letter is to notify you that we plan to do a partial-closure of this permit by closing-out the T-101 storage tank. This tank was used to store waste 1,1,1-trichloroethane. However, we no longer use this solvent as a cleaning agent.

The tank is now essentially empty. The waste 1,1,1-trichloroethane was sent to a solvent reclaimer, Petro Chem, Inc., in Detroit. Also a waste-water layer was sent to an approved waste treatment company, Environmental Waste Control, Inc. in Inkster. This included the first high-pressure lance washing. A small amount, (about 1,050 gallons) of rusty water remains in the tank.

Attached is a copy of the Wacker Silicones Corporation RCRA Closure Plan. We are proposing a slight deviation from the attached procedure. After the initial washing with a high pressure lance (which did go to Environmental Waste Control), the subsequent washings, which will be only slightly contaminated, will be taken to our own on-site waste wash-water treating system, which is part of our

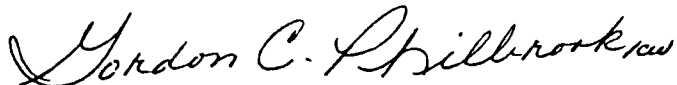
approved NPDES permit operation (Michigan Permit Number 0026034).

We expect to have the completed, certified closure of T-101 in about 90 days. We have arranged for the services of a professional engineer from SSOE, Inc. of Toledo, Ohio, to verify the closure procedure.

If you need any more information, please contact me at the above address, or call me at 517-264-8361.

Yours truly,

WACKER SILICONES CORPORATION



Gordon C. Philbrook
Administrator,
Environmental Regulations

Certified

CC: Mr. Martin Jacobson
(MDNR, Jackson MI)
US EPA, Region V

BCC: J. BARANCIN
S. ETTER
S. KLEIN
R. KOEHLER
J. LORENZEN
M. REALE (M&R CONSULTANTS)
W. VOGEL

INTER-OFFICE CORRESPONDENCE

WACKER SILICONES CORPORATION

TO: J. BARANCIN

DATE: JANUARY 13, 1992

CC: D. BRIGGS
S. ETTER
R. KOEHLER
J. LORENZEN
S. RUFFNER
W. VOGEL

FROM: G. C. PHILBROOK
SUBJECT: CLOSURE OF T-101

On January 10, 1992, I called Mr. Martin Jacobson of the Michigan Department of Natural Resources (MDNR) concerning the closure of T-101.

I reminded him of the memo dated October 24, 1991 on this subject. I told him that the only change to the Closure Plan would be that we are probably going to have to sand blast the interior of the tank due to the rust layer.

Mr. Jacobson said that the plan sounds good and to send the MDNR a certified professional engineer statement after the tank has been all cleaned up. After the MDNR approval, the tank will be considered closed, and we can remove T-101 from the permit and from the Closure Plan.

Therefore, I am requesting that you proceed with getting the rusty water out of T-101 (via tote tanks to wash-water treating system), and arranging for sand blasting.

Please let me know the timing on this project.


G. C. Philbrook

APPENDIX B

HAZARDOUS WASTE SHIPPING MANIFESTS

1113 82:00 DNR
MICHIGAN DEPARTMENT
OF NATURAL RESOURCES

DO NOT WRITE IN THIS SPACE
 ATT. ☐ DIS. ☐ REJ. ☐ PR. ☐

Required under authority of Act 64, P.A. 1979, as amended and Act 136, P.A. 1969.
 Failure to file is punishable under section 299.548 MCL or Section 10 of Act 136, P.A. 1969.

lease print or type		Form Approved OMB No. 2050-0039 Expires 9-30-91	
UNIFORM HAZARDOUS WASTE MANIFEST		Generator's US EPA ID No. MI D 0 7 9 4 0 0 6 7 1 0 1 0 2 0	Manifest Document No. 2 Page 1 of 1
3. Generator's Name and Mailing Address WACKER SILICONES CORPORATION 3301 Sutton Rd., Adrian, MI 49221		A. State Manifest Document Number MI 2176646	
4. Generator's Phone (517) 264 8500		B. State Generator's ID	
5. Transporter 1 Company Name Petro-Chem Processing, Inc.		C. State Transporter's ID	
6. US EPA ID Number MI D 9 8 0 6 1 5 2 9 8		D. Transporter's Phone 313 824 5840	
7. Transporter 2 Company Name		E. State Transporter's ID	
8. US EPA ID Number		F. Transporter's Phone	
9. Designated Facility Name and Site Address Petro-Chem Processing, Inc. 421 Lycaste Detroit, MI 48214		G. State Facility's ID	
10. US EPA ID Number MI D 9 8 0 6 1 5 2 9 8		H. Facility's Phone 313 824 5840	
11. US DOT Description (including Proper Shipping Name, Hazard Class, and HM ID NUMBER).		12. Containers	13. Total Quantity
a. X RQ, Waste 1,1,1 Trichlorethane (F002) ORM-A UN 2831		No. 0 0 1 Type T T	Unit 4 5 1 0 0 6
b.			
c.			
d.			
J. Additional Descriptions for Materials Listed Above TRC # 5-22-3		K. Handling Codes for Wastes Listed Above a/ / b/ / c/ / d/ /	
15. Special Handling Instructions and Additional Information Four Placards (2831) Supplied			
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.			
Printed/Typed Name Pauline Brosamer, Shipping Supervisor		Signature <i>Pauline Brosamer</i>	Date 06/13/91
17. Transporter 1 Acknowledgement of Receipt of Materials		Date	
Printed/Typed Name <i>Kenn Hest</i>		Signature <i>Kenn Hest</i>	Month Day Year 06/13/91
18. Transporter 2 Acknowledgement or Receipt of Materials		Date	
Printed/Typed Name		Signature	Month Day Year
19. Discrepancy Indication Space			
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.			
Printed/Typed Name <i>T. Hest</i>		Signature <i>T. Hest</i>	Date 06/13/91

SE
INAL
D T
17-37
F STJ
6 O
T 1-8C
MICH
SYS
Y A
N E A
N P
THE
EPOR
02 24
S MU
C I C I T Y

JUN 14 1991

WACKER SILICONES CORP

3501 SUTTON RD

the goods described in the bill of lading, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said carrier (the word carrier being understood throughout this contract as including any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the next available conveyance. It is mutually agreed that each carrier of all or any of said property ever all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every such carrier shall be bound to all the terms and conditions of the Uniform Domestic Freight Bill of Lading set forth (1) in Uniform Freight Classification in effect on the date hereof, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.

Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, including those on the back thereof, set forth in the classification or tariff which governs the transportation of the shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

CARRIER

PLANT

SOLD TO

SHIP TO

PETRO-CHEM PROCESSING, INC.
421K LYCASTE
DETROIT, MI 48214

CONTROL NO.	SHIP WHEN	P.O. NUMBER	FOR
FREIGHT TERMS	ROUTE	SHIP VIA	

REFERENCE **Prepaid** **PETRO-CHEM PROCESSING, INC.**

PACKAGE	QUANTITY	DESCRIPTION B/L CODE	CODE/PART	NET QUANTITY
CODE 41	1	TANK TRUCK BULK POLYCHLOROHYDROCARBON (WASTE T-101) XXX901 NIN STATE MANIFEST 2176647	Approx. 1500# G x 11.2# per G Approx. 50,400#	

NO/TYPE OF PKGS	HM	DESCRIPTION OF ARTICLES	B/L CODE	GROSS WEIGHT
1 BULK TANK	X	RQ, Waste 1,1,1, TRICHLOROETHANE ORM-A UN 2831 (F002)		80,740#
		<i>Petro Chem</i>		89,260
		<i>EST. -</i>		30,340
				58,920
		<i>EST. 20%</i>		5,260 gal
		<i>PETROCHEM</i>		5,527.2

SHIPPER

PER *AB*

ORIGIN CARRIER NAME

PER

DATE

Wacker Silicones Corporation
3301 Sutton Road
Adrian, MI 49221-9397
(517) 264-8500
Fax (517) 264-8246

July 2, 1991

Michigan Department of Natural Resources
Waste Management Division
P. O. Box 30038
Lansing, Michigan 48909

Gentlemen:


I wish to report a correction for a waste shipment to
Petro-Chem Processing:

MI 2176646; WS 1020; June 13, 1991

The correct amount should be 5,527 gallons (not 4,500
gallons); the loader misread the "outage" measurement
of the trailer.

Yours truly,

WACKER SILICONES CORPORATION



Gordon C. Philbrook
Administrator,
Environmental Regulations

Certified

CC: Mr. Bob White, Petro-Chem

BCC: P. Brosamer

3 P2 :1DNR

**MICHIGAN DEPARTMENT
OF NATURAL RESOURCES**

DO NOT WRITE IN THIS SPACE

ATT. ☐ DIS. ☐ REJ. ☐ PR. ☐

Required under authority of Act 64, PA
1979, as amended and Act 136, PA
1969.

Failure to file is punishable under
section 299.548 MCL or Section 10 of
Act 136, PA, 1969.

se print or type

Form Approved OMB No. 2050-0039 Expires 9-30-91

**UNIFORM HAZARDOUS
WASTE MANIFEST**

1. Generator's US EPA ID No.

Manifest
Document No.

2. Page 1
of 1

Information in the shaded areas
is not required by Federal
law

3. Generator's Name and Mailing Address

WACKER SILICONES CORPORATION
3301 Sutton Rd. Adrian, MI 49221

4. Generator's Phone (517)

264 8500

5. Transporter 1 Company Name

Petro-Chem Processing, Inc.

6. US EPA ID Number

MI D 9 8 0 6 1 5 2 9 8

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address

Petro-Chem Processing, Inc.
421 Lyncaste
Detroit, MI 48214

10. US EPA ID Number

MI D 9 8 0 6 1 5 2 9 8

A. State Manifest Document Number

MI 2176647

B. State Generator's ID

C. State Transporter's ID

D. Transporter's Phone **313 824 5840**

E. State Transporter's ID

F. Transporter's Phone

G. State Facility's ID

H. Facility's Phone

313 824 5840

11. US DOT Description (including Proper Shipping Name, Hazard Class, and
HM ID NUMBER).

a. **RQ.. Waste 1,1,1 Trichlorethane (F002)**
X ORM-A UN 2831

b. *(95% water)*

c.

d. *BUK 1/13/91*

12. Containers

No.

Type

13. Total
Quantity

14. Unit
Wt/Vol

I. Waste
No.

N/H

0 0 1 T T 4 5 0 0 G F 0 0 2 H

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes
Listed Above

a/ /

b/ /

c/ /

d/ /

15. Special Handling Instructions and Additional Information

Four Placards (*2831) Supplied

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by
proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway
according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined
to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the
present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste
generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name

Signature

Date

Month Day Year

Pauline Brosamer, Shipping Supervisor

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date

Month Day Year

18. Transporter 2 Acknowledgement or Receipt of Materials

Printed/Typed Name

Signature

Date

Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in
Item 19.

Printed/Typed Name

Signature

Date

Month Day Year

**UNIFORM HAZARDOUS
WASTE MANIFEST**
(Continuation Sheet)

21. Generator's US EPA ID No.

Manifest
Document No.

22. Page

Information in the shaded areas is not
required by Federal law.

M.I.D.0.7.5.4.0.0.6.7.1

0.1.2.7.8

2 of 2

23. Generator's Name

WACKER SILICONES CORP.
3301 SUTTON ROAD, ADRIAN, MI 49221
(517) 264-8500

L. State Manifest Document Number

MI 2570105

M. State Generator's ID

24. Transporter 3 Company Name

CHEMICAL CONSERVATION CORP.

25. US EPA ID Number

F.L.D.9.8.0.5.5.9.7.2.8

N. State Transporter's ID

O. Transporter's Phone 407 859-4441

26. Transporter Company Name

27. US EPA ID Number

P. State Transporter's ID

Q. Transporter's Phone

28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

	HM	29. Containers		30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
		No	Type			
a.						
b.						
c.						
d.						
e.						
f.						
g.						
h.						
i.						

S. Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

CONTINUATION FOR THIRD TRANSPORTER ONLY.

32. Special Handling Instructions and Additional Information

33. Transporter 33 Acknowledgement of Receipt of Materials

Printed/Typed Name

DANNY WOODS

Signature

Danny Woods

Date

Month Day Year

0.8.1.3.19.2

34. Transporter Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date

Month Day Year

35. Discrepancy Indication Space

GENERATOR

TRANSPORTER

FACILITY

WACKER SILICONES CORP
3301 SUTTON RD

ADRIAN MI 49221

DATE	SHIPPER NO.
6/18/91	B.L. # 6172

The shipper warrants that the goods are as described in the bill of lading and that the goods are in conformity with the description and condition of contents of packages unknown marked consigned and destined as indicated below which said carrier (the word carrier being understood to include any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier in the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination and as to each party at any time interested in all or any of said property, that any service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Uniform Freight Classification in effect on the date hereof, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.

Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, including those on the back thereof set forth in the classification or tariff which governs the transportation of the shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

CARRIER

PLANT

SOLD TO

JUN 19 1991

SHIP TO

PETRO-CHEM PROCESSING INC.
431 Lycaste
Detroit, MI 48214

CONTROL NO.	SHIP WHEN	P.O. NUMBER	F.O.B.
FREIGHT TERMS	ROUTE	SHIP VIA	

REFERENCE **PREGAUD** **OET** **PETRO-CHEM PROCESSING INC.**

PACKAGE	QUANTITY	DESCRIPTION B/L CODE	CODE/PART	NET QUANTITY
CODE 41	1 TANK TRUCK BULK POLYCHLOROHYDROCARBON (WASTE T-101) (65% water !)			39,480#
		STATE MANIFEST NO. 2176646		

NO/TYPE OF PKGS.	HM	DESCRIPTION OF ARTICLES	B/L CODE	GROSS WEIGHT
1 Bulk Tank	X	RD, WASTE 1,1,1 TRICHLOROETHANE ORM-A UN 2831 (F002)		39480# 70020 30,580 39,480

SHIPPER

PER

ORIGIN CARRIER NAME

PER

DATE

$4500 \times 8.34 = 37,530$
 $4500 \times 1/2 = 2,250$
 $37,530 + 2,250 = 39,780$

$x = \text{gal } 1/2$
 $y = \text{water}$

$x(1/2) + y(8.34) = 39,480$

$x + y = 4,500$

$y = 4,500 - x$

$x(1/2) + [(4,500 - x)8.34] = 39,480$

$x(1/2) + 37,530 - 8.34x = 39,480$

$1/2x - 8.34x = 1,950$

$-8.14x = 1,950$

$x = 682$

$y = 3,818$
 $4,500$

$682(1/2) + 3818(8.34) =$
 $7,638 + 31,842 = 39,480$

re: is gal 15% 1/2

$\$3900 + CR$
 $1700 \times 1/2 =$

$3900 ?$
 3550
 340

85% water

DNR

MICHIGAN DEPARTMENT
OF NATURAL RESOURCES

OCT 25 1991

DO NOT WRITE IN THIS SPACE

ATT. ☐ DIS. ☐ REJ. ☐ PR. ☐Required under authority of Act 64, P.A.
1979, as amended and Act 136, P.A.
1969.Failure to file is punishable under
section 299.548 MCL or Section 10 of
Act 136, P.A. 1969.

Base print or type

Form Approved OMB No. 2050-0039 Expires 9-30-91

UNIFORM HAZARDOUS
WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest
Document No.

2. Page 1

Information in the shaded areas
is not required by Federal
law

3. Generator's Name and Mailing Address

WACKER SILICONES CORPORATION
3301 Sutton Rd.

A. State Manifest Document Number

MI 2351100

4. Generator's Phone

517.264 8500

B. State Generator's ID

5. Transporter 1 Company Name

Quanta Corp.

6. US EPA ID Number

MI 1019807933510

C. State Transporter's ID

7. Transporter 2 Company Name

8. US EPA ID Number

D. Transporter's Phone 313 282 3044

E. State Transporter's ID

9. Designated Facility Name and Site Address

Environmental Waste Control
27140 Princeton Ave.
Inkster, MI 48141

10. US EPA ID Number

MI 101057002602

G. State Facility's ID

H. Facility's Phone 313 561 1400

11. US DOT Description (including Proper Shipping Name, Hazard Class, and
HM ID NUMBER).

12. Containers

13. Total
Quantity14. Unit
Wt/VolI. Waste
No.

N/H

a. X Hazardous Waste, Liquid, N.O.S.
(contains 1,1,1 Trichloroethane)
ORM-E NA 9189

0 0 1 T T 0 0 8 4 0 6 F 0 0 2 H

J. Additional Descriptions for Materials Listed Above

a. #16112, T-101 Water Waste

K. Handling Codes for Wastes
Listed Abovea/ /
b/ /
c/ /
d/ /

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by
proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway
according to applicable international and national government regulations.If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined
to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the
present and future threat to human health and the environment; OR: if I am a small quantity generator, I have made a good faith effort to minimize my waste
generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name

P. Brosamer, Shipping Supervisor

Signature

Date

Month Day Year
11/9/17/91

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date

Month Day Year
11/11/91

18. Transporter 2 Acknowledgement or Receipt of Materials

Printed/Typed Name

Signature

Date

Month Day Year
11/11/91

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in
Item 19

Printed/Typed Name

T. L. M. T. J. S.

Signature

T. L. M. T. J. S.

Date

Month Day Year
11/9/17/91

WACKER SILICONES CORPORATION
3307 Sutton Rd.
Adrian, MI 49221

DATE	SHIPPER NO.
10/17/91	6215

This property described herein, in apparent good order except as noted (contents and condition of contents of packages unknown) marked, consigned and destined as indicated below which said carrier (the word carrier being under-
stood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route (otherwise to deliver to another carrier
on the route to said destination. It is mutually agreed as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that
every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Uniform Freight Classification in effect on the date hereof, if this is a rail or a rail-
water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.
Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading including those on the back thereof, set forth in the classification or tariff which governs the transportation of the shipment, and
the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

CARRIER

CHEMTREC PHONE NO. 800-424-9300
WACKER SILICONES CORP. 517-264-8500
STATE MANIFEST NO. 2351100

PLANT

SOLD TO

SHIP TO

ENVIRONMENTAL WASTE CONTROL
27140 PRINCETON AVE
INKSTER, MI 48141

CONTROL NO.	SHIP WHEN	P O NUMBER	FOB

FREIGHT TERMS	ROUTE	SHIP VIA

Prepaid

Quanta Corp.

REFERENCE

PACKAGE	QUANTITY	DESCRIPTION	B/L CODE	CODE/PART	NET QUANTITY
	1 tank Truck	T-101 Water Waste			7060#
				Gallons: 840	

NO/TYPE OF PKGS.	HM	DESCRIPTION OF ARTICLES	B/L CODE	GROSS WEIGHT
1 Tank Truck	X	Hazardous Waste, Liquid, H.O.S. (contains 1,1,1 Trichloroethane) ORME NA 9189 PLACARD TRAILER DANGEROUS PLACARD REQUIRED & FURNISHED		55,480#

SHIPPER'S PER	ORIGIN CARRIER NAME	PER	DATE

DNR

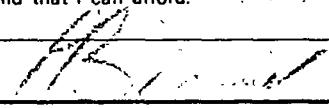
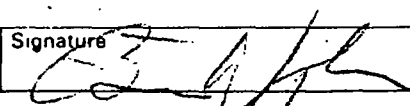
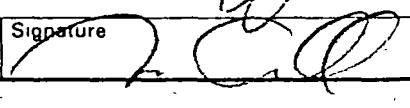
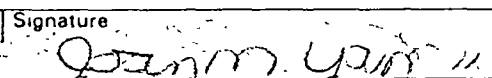
MICHIGAN DEPARTMENT
OF NATURAL RESOURCES

DO NOT WRITE IN THIS SPACE

ATT. ☐ DIS. ☐ REJ. ☐ PR. ☐Required under authority of Act 64, PA
1979, as amended and Act 136, PA,
1969.Failure to file is punishable under
section 299.548 MCL or Section 10 of
Act 136, PA, 1969.

Please print or type

Form Approved. OMB No. 2050-0039 Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.		Manifest Document No.		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address WACKER SILICONES CORPORATION 3301 Sutton Rd., Adrian, MI 49221		4. Generator's Phone (517) 264 8500		5. Transporter 1 Company Name QUANTA CORP.		6. US EPA ID Number MI D 0 9 8 0 7 9 3 3 5 0		A. State Manifest Document Number MI 2570105	
7. Transporter 2 Company Name Chem-Met Services, Inc.		8. US EPA ID Number MI D 0 9 6 9 6 3 1 9 1 4		9. Designated Facility Name and Site Address CHEMICAL CONSERVATION OF GEORGIA, INC. 1612 A JAMES P. RODGERS CIRCLE VALDOSTA, GEORGIA 31601		10. US EPA ID Number GA D 0 9 3 3 8 0 8 1 4		B. State Generator's ID	
11. US DOT Description (including Proper Shipping Name, Hazard Class, and HM ID NUMBER).		12. Containers		13. Total Quantity		14. Unit Wt/Vol		1. Waste No. N/H	
a.	X HAZARDOUS WASTE LIQUID, N.O.S. (CONTAINS 1,1,1 TRICHLOROETHANE), RQ, (P002) ORM-E NA 9189	0	4	5	D	M	2	2	5
b.									
c.									
d.									
J. Additional Descriptions for Materials Listed Above a. approval no. WACG 0379		K. Handling Codes for Wastes Listed Above		a/ /		b/ /		c/ /	
15. Special Handling Instructions and Additional Information Need land ban form		16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.		Date Month Day Year 10/11/09					
Printed/Typed Name P. Brosamer, SUPERVISOR		Signature 		Date Month Day Year 10/11/09					
17. Transporter 1 Acknowledgement of Receipt of Materials		Printed/Typed Name Benjamin		Signature 					
18. Transporter 2 Acknowledgement or Receipt of Materials		Printed/Typed Name TOM CHASE		Signature 					
19. Discrepancy Indication Space		20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19		Printed/Typed Name JOAN M. YANCY					
		Signature 		Date Month Day Year 10/27/09					

ALL SPILLS MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM, IN MIC
N AT 1-800-282-4706 OR OUT OF STATE AT 517-373-7860 AND THE NATIONAL RESPONSE
CENTER AT 1-800-424-802 24 HOURS PER DAY

GENERATOR

TRANSPORTER

RECEIVER

STRAIGHT BILL OF LADING - NOT NEGOTIABLE.

Pg 1

subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading.

3301 Sutton Rd.

Adrian, MI 49221

DATE

SHIPPER NO.

8/9/92

B.L. 7640

The property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said carrier (the word carrier being understood throughout the contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to the usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Uniform Freight Classification in effect on the date hereof, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.

Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, including those on the back thereof, set forth in the classification or tariff which governs the transportation of the shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

CARRIER

CHEMTREC PHONE NO. 800-424-9300

WACKER SILICONES CORPORATION 517-264-8500

STATE MANIFEST NO. 2570105

"ALL DETENTION CHARGES AT UNLOADING POINT ARE TO BE BILLED AND COLLECTED FROM CONSIGNEE EXCEPT ON STOP-OFF SHIPMENTS".

THE DESCRIPTION AND WEIGHT ON THIS BILL OF LADING ARE CORRECT, SUBJECT TO VERIFICATION BY THE EASTERN, WESTERN, TCFB AND/OR SOUTHERN WEIGHING AND INSPECTION BUREAUS, ACCORDING TO AGREEMENT.

THIS IS TO CERTIFY THAT THE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED, AND LABELED, AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION.

SOLD TO

SHIP TO

CHEMICAL CONSERVATION OF GEORGIA, INC.
1612 JAMES P. RODGERS CIRCLE, VALDOSTA, GA 31601
c/o CHEM MET SERVICES
18550 ALLEN RD., WYANDOTTE, MI 48192

CONTROL NO.	SHIP WHEN	P.O. NUMBER	F.O.B.
FREIGHT TERMS	ROUTE	SHIP VIA	
Prepaid		QUANTA CORP.	

REFERENCE

PACKAGE	QUANTITY	DESCRIPTION B/L CODE	CODE/PART	NET QUANTITY
Code: WACG 0379	45 Drums	T-101 Sludge		22,500#

NO/TYPER OF PKGS.	HM	DESCRIPTION OF ARTICLES	B/L CODE	GROSS WEIGHT
45 Drums		HAZARDOUS WASTE LIQUID, N.O.S. (CONTAINS 1,1,1 TRICHLOROETHANE), RQ, (F002) ORM-E NA 9189		24,750#

Subject to Section 7 of Conditions of applicable bill of lading, if this shipment is to be delivered to the consignee without recourse on the consignee, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(SIGNATURE OF CONSIGNOR)

SHIPPER

B

ORIGIN CARRIER NAME

B-1/C

PER DATE 8-10

WACKER SILICO CORPORATION INSTRUMENTAL ANALYSIS REQUEST

Submitter G. Philbrook
 Sample Description T-101 Waste Sample
 Safety Precautions Normal Hygiene Prac.

41

Analysis No. 3885

Date 10-29-90

Notebook No. Water

Lot No. _____

Check Appropriate Blanks. This Sample for -

☒ FLUIDS
☐ RTV
☐ HCR
☐ PAINT & CONSTRUCTION

☐ PAPER COATINGS
☐ TEXTILES
☐ OTHER

☐ QUALITY ASSURANCE
☒ PLANT ASSISTANCE
☐ DEVELOPMENT
☐ TECHNICAL/CUSTOMER SERVICE

Circle or Check Analysis Desired:

NMR	
Proton: 60 MHz <input checked="" type="checkbox"/>	
300 MHz _____	
Carbon - 13 _____	
Silicone - 29 _____	
Other _____	
% OH _____	
% VI _____	
% Other _____	
Solvent _____	

GPC Long Col. _____ Short Col. _____

IR KBR _____ NEAT _____
 CAST FILM _____ ATR _____

UV _____

REFRACTIVE INDEX _____

SPV _____

HPLC _____

GAS CHROMATOGRAPHY	
Detector: TCD _____ FID _____	
Temp. Range: _____	
Column: Capillary _____ Packed _____	
Type (OV-1, etc.): _____	
Purge and Trap: _____	

Est. Conc.	Result
_____ SiOH	ppm _____
_____ SiH	ppm _____

Particle Size Analysis
Est. Range _____

Statement of Problem: (Be specific - Characterization, Identification, Purity, etc.)

Results: Me₂SiO = 5.6%
III, Trichloroethene = 88.6%
Aliphatics = 2.8%

Analyst _____

Date _____

Gordon

(41)

Ship 12/18/90 \Rightarrow

Chloroethene waste

~~T~~-101 analysis No

3917 by NMR

Showed 3.2 δ

Aliphatics, silicon-

4.5 δ , Meoh 2.6 δ

111-Tri-Chloroethane 89.7 δ

(1/2/94)

Steve Ross

WACKER SILICONES CORPORATION

INSTRUMENTAL ANALYSIS REQUEST

Submitter G. Philbrook

Sample Description T-101 chlorothene waste - (water) layer
"#41" →

Safety Precautions _____

Analysis No. 4072

Date 6-20-91

Notebook No. _____

Lot No. _____

Check Appropriate Blanks. This Sample for -

____ FLUIDS
 ____ RTV
 ____ HCR
 ____ PAINT & CONSTRUCTION

____ PAPER COATINGS
 ____ TEXTILES
 ____ OTHER

____ QUALITY ASSURANCE
☒ PLANT ASSISTANCE
 ____ DEVELOPMENT
 ____ TECHNICAL/CUSTOMER SERVICE

Circle or Check Analysis Desired:

NMR	
Proton: 60 MHz	_____
300 MHz	_____
Carbon - 13	_____
Silicone - 29	_____
Other	_____
% OH	_____
% VI	_____
% Other	_____
Solvent	_____

GPC Long Col. _____ Short Col. _____

IR KBR _____ NEAT _____
 CAST FILM _____ ATR _____

UV _____

REFRACTIVE INDEX _____

SPV _____

HPLC _____

GAS CHROMATOGRAPHY	
Detector: TCD	_____ FID _____
Temp. Range:	_____
Column: Capillary	_____ Packed _____
Type (OV-1, etc.):	_____
Purge and Trap:	_____

Est. Conc.	Result
_____ SiOH	ppm _____
_____ SiH	ppm _____

Particle Size Analysis _____ Est. Range _____
--

Statement of Problem: (Be specific - Characterization, Identification, Purity, etc.)

Composition III, water, Silic.

Results: ~87.5% H₂O, meth ~1%
Aliphatic ~1.2% unsaturated organic ~10.8%
<0.25% 1,1-trichloroethane est.

Analyst MSM

Date 6-21-91

WACHTER CHEMICALS CORPORATION
INSTRUMENTAL ANALYSIS REQUEST

Submitter Gordon Philbrook
Sample Description T-101 "SLUDGE"
Safety Precautions NIL

Analysis No. 9142
Date 5-22-92
Notebook No. _____
Lot No. _____

Check Appropriate Blanks. This Sample for -

____ FLUIDS
____ RTV
____ HCR
____ PAINT & CONSTRUCTION

____ PAPER COATINGS
____ TEXTILES
____ ☒ OTHER

____ QUALITY ASSURANCE
____ PLANT ASSISTANCE
____ ☒ DEVELOPMENT
____ ☒ TECHNICAL/CUSTOMER SERVICE

Circle or Check Analysis Desired:

NMR

Proton: 60 MHz _____
300 MHz _____
Carbon - 13 _____
Silicone - 29 _____
Other _____
☒ % OH
☒ % VI
☐ % Other
Solvent _____

GPC Long Col. _____ Short Col. _____

IR KBR _____ NEAT _____
CAST FILM _____ ATR _____

UV _____

REFRACTIVE INDEX _____

SPV _____

HPLC _____

GAS CHROMATOGRAPHY

Detector: TCD _____ FID _____

Temp. Range: _____

Column: Capillary _____ Packed _____

Type (OV-1, etc.): _____

Purge and Trap: 111-Trichloro.

Est. Conc. _____ Result _____

____ SiOH ppm _____

____ SiH ppm _____

Particle Size Analysis

Est. Range _____

Statement of Problem: (Be specific - Characterization, Identification, Purity, etc.)

Results: Approx concentration of 500 ppm 1,1,1 Trichloroethane

Analyst BH

Date 6-1-92

APPENDIX C

LABORATORY ANALYTICAL REPORTS

47930 West Rd. • Wixom, MI 48393
Phone: (313) 624-3090 • Fax (313) 624-3095

Date: 10-29-1992

To: INLAND WATERS, INC.
2021 S. Schaefer Hwy.
Detroit, MI 48217

NOV 4 1992

Date Submitted: 08/19/92

BA Report No. 509
BA Sample No. BA01030

Sample Description: Wacker Silicon, Tank T-101

Parameters:	Unit	Result	MDL	Reg Lim	Method
1,1,1-Trichloroethane	ug/wipe	nd	10		8240
1,1,2-Trichloroethane	ug/wipe	nd	10		8240

..DL: Minimum Detection Level

nd: Not Detected

Not Det: Not Detected

dnf: Did Not Flash

Reviewed By: 

Date: Oct 29, 1992

BRIGHTON ANALYTICAL, INC.

VOLATILE ANALYSIS SURROGATE RECOVERY

Method: 8240

Date of Analysis: August 27, 1992

B.A. Sample I.D.: 01030

Surrogate	% Recovery
1,2-Dichloroethane-d4	<u>119%</u>
Toluene-d8	<u>96%</u>
4-Bromofluorobenzene	<u>87%</u>

CAL

Canton Analytical Laboratory, Inc.

- 47801 Anchor Court Plymouth, Michigan 48170

(313) 459-8484 FAX (313) 459-8262

Nº 2379

CHAIN OF CUSTODY RECORD

[illegible]

CUSTODY #

WHITE ACCOMPANIED SHIPMENT

YELLOW FILE COPY

MAINTENANCE
SUPERINTENDENT

WACKER SILICON CORPORATION
INSTRUMENTAL ANALYSIS REQUEST

Submitter E. Terry Roche (G. Philbrook)

ADMINISTRATOR,
ENVIRON.
REGS.

Sample Description T-101 Waste Water

← DRUM OF WATER USED
TO RINSE OLD PIPING

Safety Precautions _____

Analysis No. 4163

Date 9-16-92

Notebook No. _____

Lot No. _____

Check Appropriate Blanks. This Sample for -

____ FLUIDS
____ RTV
____ HCR
____ PAINT & CONSTRUCTION

____ PAPER COATINGS
____ TEXTILES
____ OTHER

____ QUALITY ASSURANCE
____ PLANT ASSISTANCE
____ DEVELOPMENT
____ TECHNICAL/CUSTOMER SERVICE

Circle or Check Analysis Desired:

PURGE & TRAP GC

NMR	
Proton: 60 MHz _____	
300 MHz _____	
Carbon: -13 _____	
Silicone: -29 _____	
Other _____	
% OH _____	
% VI _____	
% Other _____	
Solvent _____	

GPC Long Col. _____ Short Col. _____

IR KBR _____ NEAT _____
CAST FILM _____ ATR _____

UV _____

REFRACTIVE INDEX _____

SPV _____

HPLC _____

GAS CHROMATOGRAPHY	
Detector: TCD _____ FID _____	
Temp Range: _____	
Column: Capillary _____ Packed _____	
Type (OV 1, etc.): _____	
Purge and Trap: _____	

Est Conc.	Result
_____ S-OH	_____ ppm
_____ S-H	_____ ppm

Particle Size Analysis
Est. Range _____

Statement of Problem: (Be specific - Characterization, Identification, Purity, etc.)

101 Trichloroethane

Results: By Purge & Trap = <0.020 ppm

Analyst _____

Date _____

Wacker Silicones Corporation**WACKER**

Wacker Silicones Corporation
 3301 Sutton Road
 Adrian, MI 49221-9397
 (517) 264-8500
 Fax (517) 264-8246

November 16, 1992

xc: Rich Traub, EPA
 w/ Certification

Michigan Department of Natural Resources
 Waste Management Division
 1st Floor, South Ottawa Building
 P. O. Box 30028
 Lansing, Michigan 48909

Re: Wacker Silicones Corporation
 US EPA ID# MID 075400671

Gentlemen:

This is a follow-up to my letter to your dated October 24, 1991 concerning the closure of one of our hazardous waste storage tanks, T-101.

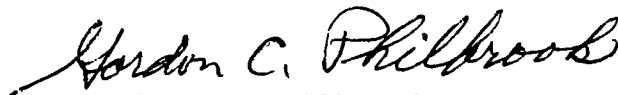
Enclosed are two copies of the Closure Certification which were prepared by City Environmental Contracting, Inc.

We are affirming that this job is completed, and we are removing the T-101 tank from our RCRA Part B hazardous waste storage permit and from our RCRA Closure Plan.

If you have any questions, please call me at 517-264-8361.

Yours truly,

WACKER SILICONES CORPORATION



Gordon C. Philbrook
 Administrator,
 Environmental Regulations

Certified

CC: W/1 copy - Certified
 Mr. Martin Jacobson
 MDNR Jackson Office

RECEIVED

NOV 17 1992

Waste Management
 Division

Called Gordon Philbrook 2/3/93
 to request submittal of the
 company certification with
 40 CFR 270.11(d) wording.
 He will fax it by 2/8/93.
 Thengyl Kone
 → Copy attached.

Wacker Silicones Corporation
3301 Sutton Road
Adrian, MI 49221-9397
(517) 264-8500
Fax (517) 264-8246

February 3, 1993

Ms. Cheryl Howe
Michigan Department of Natural Resources
Waste Management Division
1st Floor, South Ottawa Building
P. O. Box 30028
Lansing, Michigan 48909

Re: Wacker Silicones Corporation
US EPA ID # MID 075400671
Closure of T-101 Tank

Dear Ms. Howe:

In response to the telephone conversation, with our Mr. Gordon Philbrook, on February 3, 1993, we are certifying the closure of the storage tank T-101, as follows; as per 40 CFR 270.11(d):

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or the persons directly responsible for gathering the information, the information submitted is, to be the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Yours truly,

WACKER SILICONES CORPORATION


Wolfgang F. Vogel
Vice President - Operations

Certified, 2 Copies

CC: Certified
Mr. Martin Jacobson
MDNR Jackson Office